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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.			YUEN, KAN	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/584,054	<b>Applicant(s)</b> EDSBERG, DAVID	
	<b>Examiner</b> KAN YUEN	<b>Art Unit</b> 2464	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Detailed Action***

***Drawings***

1. The drawings are objected to because figures 11-13 did not labeled as "Prior Art". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37

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CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

### ***Claim Objections***

3. Claims 8-17, 19-22, 27, 39-42, 50-53 are objected to because of the following informalities:

**In claim 12**, line 4, the term “configured to” should be changed to “configured to:”. Appropriate correction is required.

**In claim 19**, line 8, the term “an acquisition response” should be changed to “an first acquisition response”.

In line 11, the same term “an acquisition response” should be changed to “an second acquisition response”.

In claim 23, line 4, the phrase “an instruction to send a first acquisition response...” should be changed to “an instruction to cause the remote to send a first acquisition response...”. Similar problem exists in claims 8, 39 and 50.

**In claim 27**, line 12, the term “from the hub” should be changed to “to the remote”.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 2, 5, 6, 8-11, 24, 19-22, 27-31, 33, 36, 37, 39-42, 44, 47, 48, 50-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**For claim 13**, line 1-2, the phrase “wherein the second acquisition command identifies one of the remote and another remote...” is considered vague and indefinite. It is unclear whether the second acquisition command identifies one remote or two remotes for acquisition. The Examiner broadly interprets the phrase as “wherein the second acquisition command identifies one of the plurality of remotes..”. Similar problem exists in claims 2, 24, 33, 44.

**For claim 16**, line 4, the term “about” is considered vague and indefinite. The Examiner does not know whether the latency time is exactly equal to twice (2x) the time elapsed or equal to one (1x) time elapsed. Based on the broadest reasonable interpretation, one (1x) time elapsed is about twice (2x) the time elapsed. Similar problem exists in claims 5, 8, 19, 27, 36, 39, 47, 50.

**For claim 17**, the applicant claims **element A** “a next remote selecting unit configured to select a next acquisition remote according to at least one of a round robin algorithm, a least recently used algorithm, and a priority algorithm”, and **element B** “a next frequency selecting unit configured to select a next frequency based on an offset frequency of a previous acquisition command”. The two elements are considered vague and indefinite. It is unclear whether or not the element A is inter-related with element B. Similar problem exists in claims, 6, 37 and 48.

**For claim 19**, lines 5-6, the term “a message” is considered vague and indefinite. It is unclear whether the term “a message” is referring to one of the sequence of downlink messages, or it is a new message.

in line 12, the term “a response” lacks antecedent basis. It is unclear whether the term “a response” is referring back to the term “an acquisition response” in line 8, or the same term in line 11. Similar problem exists in claims, 8, 39 and 50.

### ***Detailed Action***

#### ***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 32-42 are rejected under 35 USC 101 because the claimed subject matter “A computer program product” is directed to non-statutory subject matter because it is directed to software per se. It would be statutory if the computer program product is embodied on a non-transitory computer readable medium, provided the instant specification supports the limitation thereof.

#### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 4, 12, 13, 15, 23, 24, 32, 33, 35, 43, 44 , 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Heiman et al. (Pub No.: 2004/0136334).

**In claim 12**, Heiman et al. disclosed an hub apparatus configured to acquire a remote node of a plurality of remote nodes in a satellite communication network, said hub apparatus comprising:

an acquisition unit configured to send a first acquisition command (request response with the first time frame) to the remote, said first acquisition command configured to: instruct the remote to send an acquisition response (response by transmitting compressed voice packets); include an indication of a first frequency (Heiman et al. see paragraphs 0029-0032, fig. 4). Remote terminal 110 (VSAT) can request a TDM allocation from the hub 105, and the hub 105 will respond (command) with one or more allocations of time-frequency slots of the return data channel 205 in one or more time frames (see paragraph 0032, lines 11-15); and

wherein said acquisition unit is further configured to send a second acquisition command (request response with the second time frame) before the receiving unit receives a first acquisition response (Heiman et al. see paragraphs 0031-0032, fig. 4). The hub 105 will respond (command) with one or more allocation of time-frequency slots in one or more time frames (see paragraph 0032, lines 11-15). Thus, the hub uses

first and/or second or more time frames to respond to the allocation request before the terminal starts to transmit compressed voice packets;

a receiving unit configured to receive the first acquisition response based on the first acquisition command from the remote using the first frequency (Heiman et al. see paragraph 0031, fig. 4). After the allocation is completed, the remote 110 will use the allocation to deliver compressed voice packets during the voice session. In other words, the remote terminal responded to the hub by transmitting compressed voice packets using the allocated time-frequency slots.

**Claims 1, 32 and 43** are rejected similar to claim 12.

**Regarding claim 13**, Heiman et al. disclosed the feature wherein the second acquisition command identifies one of the remote and another remote for acquisition and includes one of the first frequency and a second frequency (Heiman et al. see paragraphs 0031-0032, fig. 4). The hub 105 will respond (command) with one or more allocation of time-frequency slots in one or more time frames (see paragraph 0032, lines 11-15). Thus, the hub allocates time-frequency slots to the remote 100 to distinguishes/identifies the remote 110 from other remotes 110-N for data transmission.

**Claims 2, 24, 33 and 44** are rejected similar to claim 13.

**Regarding claim 15**, Heiman et al. disclosed the feature wherein the acquisition unit is further configured to send at least a third acquisition command to the plurality of remotes before the receiving unit receives the first response (Heiman et al. see paragraphs 0031-0032, fig. 4). The hub 105 will respond (command) with one or more allocation of time-frequency slots in one or more time frames (see paragraph 0032, lines



11-15). Thus, the hub uses first and second or more time frames to respond to the allocation request before the terminal starts to transmit compressed voice packets;

**Claims 4, 35 and 46** are rejected similar to claim 15.

**Regarding claim 23**, Heiman et al. disclosed an remote apparatus in a satellite communication network, said remote apparatus comprising:

a receiving unit (fig. 9, receiver 906) configured to receive a first acquisition command (request response with the first time frame) from a hub, said first acquisition command including an instruction to send a first acquisition response (response by transmitting compressed voice packets) to the hub using a first frequency (Heiman et al. see paragraphs 0028-0032, fig. 4). Remote terminal 110 (VSAT) can request a TDM allocation from the hub 105, and the hub 105 will respond (command) with one or more allocations of time-frequency slots of the return data channel 205 in one or more time frames (see paragraph 0032, lines 11-15);

wherein the first acquisition response is received at the hub after the hub sends a second acquisition command (request response with the second time frame) and (Heiman et al. see paragraphs 0031-0032, fig. 4). The hub 105 will respond (command) with one or more allocation of time-frequency slots in one or more time frames (see paragraph 0032, lines 11-15). Thus, the hub uses first and/or second or more time frames to respond to the allocation request before the terminal starts to transmit compressed voice packets;

a response sending unit (fig. 9, transmitter 905) configured to send the first acquisition response to the hub based on the first acquisition command using the first

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frequency (Heiman et al. see paragraph 0031, fig. 4). After the allocation is completed, the remote 110 will use the allocation to deliver compressed voice packets during the voice session. In other words, the remote terminal responded to the hub by transmitting compressed voice packets using the allocated time-frequency slots.

### ***Claim Rejections - 35 USC § 103***

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3, 14, 25, 34, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heiman et al. (Pub No.: 2004/0136334) in view of Goldstein et al. (Pub No.: 2005/0085249).

**For claim 14**, Heiman et al. did not explicitly disclose a detecting unit configured to detect a symbol offset in the first response; and an offset sending unit configured to sent a symbol offset correction factor to the plurality of remotes, said correction factor used by the remote in a subsequent transmission from the remote to correct the detected symbol offset. Goldstein et al. from the same or similar fields of endeavor disclosed a detecting unit configured to detect a symbol offset in the first response; and an offset sending unit configured to sent a symbol offset correction factor to the plurality of remotes, said correction factor used by the remote in a subsequent transmission from the remote to correct the detected symbol offset (Goldstein et al. see paragraphs 0023-0024). Determining desired parameters of the frequency offsets for carrier groups, which should be transmitted from the hub to user nodes for the corresponding frequency offset correction.

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network of Heiman et al. to include the features as disclosed by Goldstein et al. The motivation for using the features being that it reduces network interference.

**Claims 3, 25, 34 and 45** are rejected similar to claim 14.

12. Claims 5, 16, 36, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heiman et al. (Pub No.: 2004/0136334) in view of Sakoda et al. (Pat No.: 6411662).

**Regarding claim 16**, Heiman et al. disclosed the feature wherein the acquisition unit is further configured to send the second acquisition command within a latency time of sending the first acquisition command (Heiman et al. see paragraphs 0029-0032, fig. 4). Remote terminal 110 (VSAT) can request a TDM allocation from the hub 105, and the hub 105 will respond (command) with one or more allocations of time-frequency slots of the return data channel 205 in one or more time frames (see paragraph 0032, lines 11-15), wherein each time frame has a latency time length 215 (see paragraph 0029, fig. 2);

However, Heiman et al. did not explicitly disclose the feature wherein the latency time is about twice a time elapsed between sending a message and receiving the message at the remote.

Sakoda et al. from the same or similar field of endeavor disclosed the feature wherein the latency time is about twice a time elapsed between sending a message and receiving the message at the remote (Sakoda et al. see column 7, lines 65-67, column 8, lines 1-5). A time alignment operation for the transmission/reception timing can be accomplished by advancing the timing (latency time) by a time  $A$  which is twice as long as the one-way propagation delay ( $A/2$ ), taking into account the fact that the communication between the mobile telephone 3 and the base station 2A is two-way communication consisting of transmission and reception. In other words,

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network of Heiman et al. to include the feature as

taught by Sakoda et al. The motivation for using the feature being that it synchronizes the timing in the network.

**Claims 5, 36 and 47** are rejected similar to claim 16.

13. Claims 6, 17, 37, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heiman et al. (Pub No.: 2004/0136334) in view of Molnar (Pat No.: 6298227).

**For claim 17**, Heiman et al. disclosed a next remote selecting unit configured to select a next acquisition remote according to at least one of a round robin algorithm, a least recently used algorithm, and a priority algorithm (Heiman et al. see paragraph 0040). The hub 105 may selectively assign a remote terminal a short-term TDM allocation based on the actively (load) of each terminals; and

wherein the second acquisition command identifies the next acquisition remote for acquisition and includes the next frequency (Heiman et al. see paragraph 0007). In response to allocation requests from different remote terminals 110-N, the hub allocates time slots and frequencies for the requesting terminals. Thus, different time frames can be use to allocate frequencies.

However, Heiman et al. did not explicitly disclose a next frequency selecting unit configured to select a next frequency based on an offset frequency of a previous acquisition command. Molnar from the same or similar fields of endeavor disclosed a next frequency selecting unit configured to select a next frequency based on an offset frequency of a previous acquisition command (Molnar see column 2, lines 1-5). Thus, it

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would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network as taught by Heiman et al. to include the feature as disclosed by Molnar. The motivation for using the feature being that it improves transmission reliability.

**Claims 6, 37 and 48** are rejected similar to claim 17.

14. Claims 7, 18, 26, 38, 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heiman et al. (Pub No.: 2004/0136334) in view of Doi et al. (Pub No.: 2003/0139152).

**For claim 18**, Heiman et al. did not explicitly disclose the feature wherein the indication of the first frequency includes a frequency offset that informs the remote to transmit a response based on a predetermined nominal remote transmit frequency and the frequency offset. Doi et al. from the same or similar fields of endeavor disclosed the feature wherein the indication of the first frequency includes a frequency offset that informs the remote to transmit a response based on a predetermined nominal remote transmit frequency and the frequency offset (Doi et al. see paragraphs 0043-0044). The signal processing unit 50 first detects a timing offset and frequency offset, when a link channel establishment request requesting allocation of a TCH is received from a mobile stations, and then responds to the request by transmitting a link channel allocation (timing offset and frequency offset).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network as disclosed by Heiman et al. to include the feature as disclosed by Doi et al. The motivation for using the feature being that it improves transmission efficiency.

**Claims 7, 26, 38 and 49** are rejected similar to claim 18.

15. Claims 8, 19, 27, 39, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heiman et al. (Pub No.: 2004/0136334) in view of Li et al. (Pub No.: 2005/0157734).

**For claim 19**, Heiman et al. disclosed an hub apparatus configured to acquire a remote that is one of a plurality of remotes in a synchronous communication network, said hub apparatus comprising:

a transmitting unit configured to transmit a sequence (one or more time frames) of downlink messages to the remote with a common time interval between the start of each downlink message; a first downlink message (request response with the first time frame) in the sequence includes a first acquisition command for the remote to transmit an acquisition response (response by transmitting compressed voice packets). (Heiman et al. see paragraphs 0029-0032, fig. 4). Remote terminal 110 (VSAT) can request a TDM allocation from the hub 105, and the hub 105 will respond (command) with one or more allocations of time-frequency slots of the return data channel 205 in one or more

time frames (see paragraph 0032, lines 11-15), wherein each time frame has a common time length 215 (see paragraph 0029, fig. 2);

a second downlink message (request response with the second time frame) immediately following the first downlink message in the sequence of downlink messages includes a second acquisition command for the remote to transmit an acquisition response (Heiman et al. see paragraphs 0031-0032, fig. 4). The hub 105 will respond (command) with one or more allocation of time-frequency slots in one or more time frames (see paragraph 0032, lines 11-15). Thus, the hub uses first and/or second or more time frames to respond to the allocation request before the terminal starts to transmit compressed voice packets; and

a receiving unit configured to receive a response to the first downlink message after the transmitting unit sends the second downlink message (Heiman et al. see paragraph 0031, fig. 4). After the allocation is completed, the remote 110 will use the allocation to deliver compressed voice packets during the voice session. In other words, the remote terminal responded to the hub by transmitting compressed voice packets using the allocated time-frequency slots;

However, Heiman et al. did not explicitly disclose the feature wherein the common time interval being less than about twice a time elapsed between transmitting a message from the transmitting unit and receiving the message at the remote.

Li et al. from the same or similar fields of endeavor disclosed the feature wherein the common time interval being less than about twice a time elapsed between transmitting a message from the transmitting unit and receiving the message at the



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remote (Li et al. see paragraph 0020, fig. 2). The AP transmits a poll (POLL1) to STA 1, requesting a response from STA1, and the AP transmits a poll (POLL2) to STA2, substantially simultaneously with POLL1, requesting a response from STA2. By transmitting both the poll messages at the same time, the common time interval between the two messages is equal to zero. Therefore, the common time interval is less than the time elapsed for transmitting a message from a transmission unit and received at a destination unit.

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network as disclosed by Heiman et al. to include the feature as disclosed by Li et al. The motivation for using the feature being that it improves transmission speed in the network.

**Claims 8, 39 and 50** are rejected similar to claim 19.

**Regarding claim 27**, Heiman et al. disclosed the feature remote apparatus in a synchronous satellite communication network, said remote apparatus comprising:

a receiving unit (fig. 9, receiver 906) configured to receive a sequence of downlink messages (one or more time frames) from a hub with a common time interval between the start of each downlink message (Heiman et al. see paragraphs 0029-0032, fig. 4). Remote terminal 110 (VSAT) can request a TDM allocation from the hub 105, and the hub 105 will respond (command) with one or more allocations of time-frequency slots of the return data channel 205 in one or more time frames (see paragraph 0032, lines 11-15), wherein each time frame has a common time length 215 (see paragraph 0029, fig. 2);

a response sending unit (fig. 9, transmitter 905) configured to send a first acquisition response (response by transmitting compressed voice packets) to the hub based on a first acquisition command (request response with the first time frame) included in a first downlink message in the sequence and send a second acquisition response (response by transmitting compressed voice packets) to the hub based on a second acquisition command (request response with the second time frame) included in a second downlink message in the sequence (Heiman et al. see paragraphs 0031-0032, fig. 4). The hub 105 will respond (command) with one or more allocation of time-frequency slots in one or more time frames (see paragraph 0032, lines 11-15). Thus, the hub uses first and/or second or more time frames to respond to the allocation request before the terminal starts to transmit compressed voice packets;

wherein the first acquisition response is received at the hub after the hub sends the second downlink message to the remote (request response with the second time frame) and (Heiman et al. see paragraph 0031, fig. 4). After the allocation is completed, the remote 110 will use the allocation to deliver compressed voice packets during the voice session. In other words, the remote terminal responded to the hub by transmitting compressed voice packets using the allocated time-frequency slots;

However, Heiman et al. did not explicitly disclose the feature wherein the common time interval being less than about twice a time elapsed between transmitting a message from the transmitting unit and receiving the message at the remote.

Li et al. from the same or similar fields of endeavor disclosed the feature wherein the common time interval being less than about twice a time elapsed between

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transmitting a message from the transmitting unit and receiving the message at the remote (Li et al. see paragraph 0020, fig. 2). The AP transmits a poll (POLL1) to STA 1, requesting a response from STA1, and the AP transmits a poll (POLL2) to STA2, substantially simultaneously with POLL1, requesting a response from STA2. By transmitting both the poll messages at the same time, the common time interval between the two messages is equal to zero. Therefore, the common time interval is less than the time elapsed for transmitting a message from a transmission unit and received at a destination unit.

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network as disclosed by Heiman et al. to include the feature as disclosed by Li et al. The motivation for using the feature being that it improves transmission speed in the network.

***Allowable Subject Matter***

16. Claims 9-11, 20-22, 28-31 and 51-53 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

***Examiner's Note:***

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Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAN YUEN whose telephone number is (571)270-1413. The examiner can normally be reached on Monday-Friday 10:00a.m-3:00p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky O. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kan Yuen/  
Examiner, Art Unit 2464

/Ricky Ngo/  
Supervisory Patent Examiner, Art  
Unit 2464

KY